Rail to New Era

Supreme Transportation Technology and Comprehensive Services

EN50155

╱ Network Video Recorder
╱ Driver Machine Interface
╱ Passenger Information System
╱ Multimedia and Entertainment System

ARS-2110

ARS-2510

ADVANTECH

Enabling an Intelligent Planet

CE FC CCC c(UL)us CLASSIFIED intel IoT Solutions Alliance Premier

Conformal Coating
Protection against moisture or chemical contaminants

Expansion Flexibility
Multiple swappable and customizable trays

Robust Design
Fanless, Security-locking connectors only (DB9, M12..)

Gyroscope
Orientation / rotation measurement and maintenance

Odometer
Accurate mile history record

Shock / Vibration
EN50155 Railway degree vibration / shock solution

24V/48V/72V/110V
EN50155 S2&C1 Power input 24V/48V/72V/110V

T3 / TX
EN50155 T3 -25°C ~ +70°C
EN50155 TX -40°C ~ +70°C

Communication
GPS/AGPS, WLAN, CDMA/HSDPA, GSM-R

PIS

Passenger Information System (PIS)
provides train relevant info including arrival & departure time, entertainment contents, and emergency notices.

Series Module   M12 Ethernet Switch   15"~21", 38" Signage

ARS-2110 Rolling Stock Controller

DMI

Driver Machine Interface (DMI)
is the interface between Vital Computer in the driver cab and the driver; it acquires driver's commands and transforms VC commandsin graphical and audible info.

CAN Module   Driver display

MES

Multimedia and Entertainment System (MES) is an advanced solution to managed all types of digital media content, serving as passengers' on-demand entertainment.

SSD Module   M12 Ethernet Switch   7"~8" Signage

ARS-2510 Rolling Stock Controller

NVR

Network Video Recorder (NVR) functions well with a system of large storage and stable connection to IP cameras,which enhances security and safety on trains.

SSD Module   M12 Ethernet Switch   IP Camera

		ARS-2110TX	ARS-2510T3
Processor System	CPU	Intel® Atom™ E3845 Quad Core 1.91GHz	Intel® ULV Core™ i7 3517UE Dual Core 1.7GHz (max 2.8GHz with Turbo Frequency)
	System Chipset	Intel® Valleyview-D/I SoC Integrated	Intel® QM77
Memory	Technology	DDR3L 1333MHz, 204-pin SO-DIMM × 1, support up to 4GB	DDR3 1600MHz, DDR3L 1333MHz, 204-pin SO-DIMM x 1, support up to 8GB
Graphics	Chipset	Intel® HD Graphics	Intel QM77 Integrated GFX Gen 7
	Video Resolutions	VGA up to 2560 x 1600 @ 60Hz / LVDS up to 1920 x 1200	VGA up to 2048 × 1536 @ 75Hz / DVI up to 1920 × 1080
	Dual Display	VGA+LVDS	VGA+DVI
Ethernet	LAN1 and LAN2	10/100/1000 Mbps Intel I210 Ethernet Controller (M12 Connector)	10/100/1000 Mbps Intel 82579LM Ethernet Controller (M12 connector) 10/100/1000 Mbps Intel 82583V Ethernet Controller (M12 connector)
I/O Interface	Serial Port	RS-232/422/485 Port with Auto Flow Control x 2	
	USB Interface	USB 3.0 x 1 (Type A x 1), USB 2.0 x 2 (M12 x 1)	USB 3.0 x 2 (Type A x 2), USB 2.0 x 1 (M12 x 1)
Expansion Function	Communications	GPS, WiFi , 3G / LTE, GSM-R / GPRS-R	
	Sensor	G-Sensor	
	Gyroscope	Turn Rate Sensor for Dead Reckoning (SPEED+ and FWD+ Signals on DB15 Connector, Integrated in GPS Module)	
Software Support	OS	Windows 7, Windows 7 Embedded, Linux 2.6.xx	
	Intel iAMT	N/A	V8.0
Power Request	Power Input Voltage	24Vdc , 48Vdc, 72Vdc, 110Vdc (Optional; M12 with 4 Poles)	
Mechanical	Construction	Aluminum Housing	
	Dimensions (W × H × D)	270 mm × 90 mm × 175 mm	
	Weight	5Kg	
Environment	Operating Temperature	EN50155 TX : -40°C ~ 70°C (85°C for 10 Minutes)	-25 ~ 70°C (85°C for 10 Minutes)
			* T3 EN50155 with 0.7m/s airflow (pre-scan done only for Core i7)
			* at 70°C for 72h with 50% CPU load at 2.8GHz
			* at 85°C for 10 minutes with 50% CPU load at 800Mhz
	Storage Temperature	-40 ~ 85°C	
	Relative Humidity	95% 40°C (Non-Condensing)	
Certificate	Vibration/Shock	MIL-STD-810F, EN50155	
	Railway Related	EN50155, EN50121, IEC61373	
	EMC	CE/FCC Class A	
	Safely Certifications	UL	

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For sales inquiries and further information,
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http://www.advantech.com/DMS/Solutions/Transportation.aspx